

# Bobcat Population Analyses 2001

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## **Abstract**

Data obtained from 2,202 bobcats harvested during 1983-2000 seasons were used to evaluate Wisconsin's bobcat population. Analyses suggest that fall population sizes have fluctuated between 1,500 and 2,400 since 1981.

## **Methods**

Successful hunters and trappers were required to register their bobcat at a DNR station and turn in the carcass at that time. The sex, date of harvest, and county of harvest were recorded for each carcass. A canine tooth was extracted and sent to Matson's Lab, Milltown, MT for processing and aging (determined by counting annuli in the cementum). Ovaries and uteri were removed from all female carcasses and stored in 10% formalin. These were then examined for the presence/numbers of placental scars. Bobcat population estimates and trends were determined by incorporating these data into Minnesota's Furbearer Population Model.

## **Results**

Biological samples were obtained from 145 (89 males; 56 females) bobcats harvested during the 2000 season. Age information from those carcasses are not yet available. Data from the carcasses collected since 1983 are summarized in Tables 1 and 2.

Kits averaged 28% of the bobcats harvested during 1983-99, yearlings 25%, and adults 47% (Table 1). Examination of 668 female reproductive tracts showed mean pregnancy rates of 37% for yearlings and 73% for adults. The mean number of placental scars per pregnancy was 2.7 (Table 2).

Harvest, age, and reproduction data were incorporated into the Minnesota Furbearer Population Model. Analyses suggest that the fall bobcat population in northern Wisconsin fluctuated between 1,500 and 2,400 during 1981-2001 (Fig. 1). It appears that the bobcat population declined in the mid-1980s but the conservative harvests since 1988 have permitted steady population growth, except in 1993 when poor reproduction reduced the population to about 1,500.

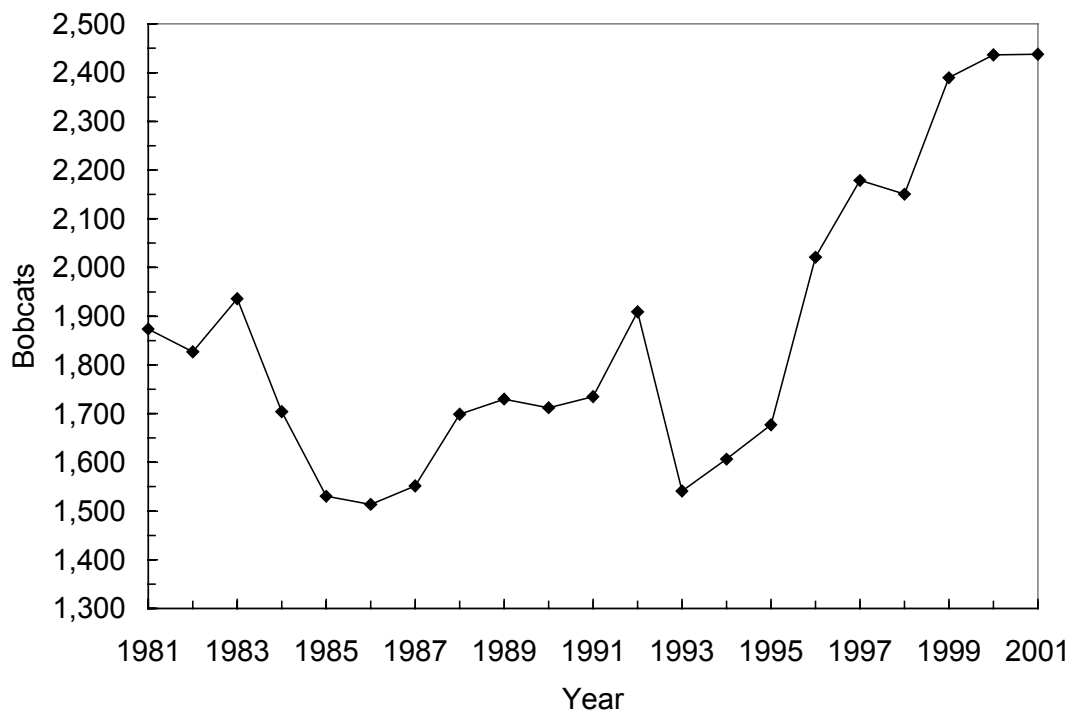
The fall population estimate for the portion of Wisconsin north of State Highway 64 for 2001 is approximately 2,440. The WDNR Furbearer Advisory Committee recommended a harvest of 220 bobcats for the 2001 season. Conservative harvest should allow for continued growth of the bobcat population.

**Table 1.** *Ages of bobcats harvested in Wisconsin, 1983-99.*

Year	No. aged	Percent in age class						
		Kits	1	2	3	4	5	6+
1983	84	23.8	31.0	14.3	13.1	6.0	3.6	8.3
1984	97	25.8	25.8	10.3	13.4	13.4	6.2	5.2
1985	168	32.1	30.4	10.7	7.1	5.4	7.1	7.1
1986	158	27.9	27.9	11.4	7.0	8.2	4.4	13.3
1987	221	31.7	26.7	16.7	10.4	3.6	2.3	8.6
1988	127	34.7	30.7	10.2	8.7	4.7	3.2	7.9
1989	103	23.3	26.2	17.5	12.6	9.7	3.9	6.8
1990	86	44.2	23.3	15.1	7.0	3.5	2.3	4.6
1991	57	26.3	28.1	24.6	12.3	7.0	0.0	1.8
1992	181	21.6	28.2	16.6	9.9	9.4	6.6	7.7
1993	131	24.4	22.9	16.8	19.8	3.8	7.6	4.6
1994	153	23.5	24.2	16.3	9.8	7.8	6.5	11.8
1995	79	21.5	19.0	13.9	12.7	6.3	11.4	15.2
1996	105	26.7	22.9	20.0	8.6	7.6	4.8	9.5
1997	139	23.7	18.0	22.3	10.8	10.8	5.0	9.4
1998	168	25.0	23.2	17.3	10.1	10.1	2.4	11.9
1999	145	31.7	14.5	15.9	13.8	10.3	6.9	6.9
All Years	2,202	27.6	24.9	15.7	10.8	7.5	5.0	8.6

**Table 2.** *Reproductive rates of female bobcats harvested in Wisconsin, 1983-99.*

Year	No. of carcasses	Pregnancy rates (%)		Mean number placental scars/preg.
		Yearlings	Adults	
1983	38	24	76	2.3
1984	25	11	56	2.5
1985	59	32	55	2.2
1986	46	33	71	2.6
1987	58	45	79	2.7
1988	28	75	94	3.1
1989	38	56	68	2.9
1990	24	27	69	3.0
1991	17	20	67	3.0
1992	57	38	72	2.4
1993	44	14	43	1.9
1994	39	27	71	2.9
1995	24	62	69	2.6
1996	31	67	92	2.9
1997	53	46	87	3.2
1998	49	29	78	2.6
1999	38	40	91	3.1
All Years	668	37	73	2.7



**Figure 1.** *Wisconsin's bobcat population, 1981-2001 (based on the Minnesota Furbearer Population Model).*